

Claims

1. A large resisting distortion comb-type bridge expansion joint, comprising a fixed comb plate, a movable comb plate which are
5 respectively disposed on the girders located at the two sides of the bridge expansion joint; said movable comb plate having a plurality of comb teeth at its first end; and the comb teeth of said movable comb plate interdigitating with the comb teeth of said fixed comb plate, wherein said movable comb plate having a rotating shaft on
10 its bottom at its second end, and the two ends of said rotating shaft being pivoted in shaft seats which are directly or indirectly fixed on the girder.

2. The large resisting distortion comb-type bridge expansion joint
15 of claim 1, wherein said shaft seat includes an upper shaft seat and a lower shaft seat, both of which having a half-columnar groove.

3. The large resisting distortion comb-type bridge expansion joint of claim 2, wherein said shaft seat further includes a middle shaft
20 seat, the middle portion of said rotating shaft rotates in the shaft hole of said middle shaft seat, said movable comb plate has a gap at the corresponding place to contain said middle shaft seat.

4. The large resisting distortion comb-type bridge expansion joint
25 of claim 1, wherein said rotating shaft is a half-columnar rotating shaft fixed at the bottom of the second end of said movable comb plate with two half-columnar shaped half-pivot respectively at its two ends, while the second end of said movable comb plate correspondingly has

another two half-columnar shaped half-pivot respectively at its two side, and among the said four half-pivots, these two same-side half-pivots can be fitted together forming a whole pivot, which is pivoted in the shaft holes of corresponding shaft seat.

5

5. The large resisting distortion comb-type bridge expansion joint of claim 4, wherein under said rotating shaft, there is a supporting seat having a half-columnar groove for supporting the part of the rotating shaft which is not supported by the shaft seat, said
10 supporting seat is fixed on a bracket jointed with the girder.

15

6. The large resisting distortion comb-type bridge expansion joint of claim 5, wherein said bracket has a L-shaped section, and joints with the girder by fixing its stand side on the sidewall of said girder.

20

7. The large resisting distortion comb-type bridge expansion joint of claim 6, wherein there is resilient cushion between the stand side of said bracket and the edge of the second end of said movable comb plate.

25

8. The large resisting distortion comb-type bridge expansion joint of claim 7, wherein there is a resilient cushion between said movable comb plate and said bracket, said movable comb plate and said resilient cushion both are fixed on the bracket or girder by safe bolts.

9. The large resisting distortion comb-type bridge expansion joint of claim 8, wherein there is resilient gasket padded around said safe bolt.

10. The large resisting distortion comb-type bridge expansion
joint of any one of claims 1 to 9, wherein each one of said comb teeth
is pivoted by a shaft within the root teeth which is at the first
5 end of said movable comb plate.

10

15

20

25